

In the Specification

Please replace the paragraph at page 19, lines 5 through 12 with the following paragraph:

P1 (1) The primary specificity site for a memapsin 2 substrate is position,  $P_1'$ . This means that the most important determinant for substrate specificity in memapsin 2 is the amino acid at  $P_1'$ .  $P_1'$  must be a small side chain for memapsin 2 to recognize the substrate. Preferred embodiments are substrate analogs where  $R_1$  of the  $P_1'$  position is either H (side chain of glycine),  $CH_3$  (side chain of alanine),  $CH_2OH$  (side chain of serine), or  $CH_2COOH$  (side chain of aspartic acid). Embodiments that have an  $R_1$  structurally smaller than  $CH_3$  (side chain of alanine) or  $CH_2OH$  (side chain of serine) are also preferred.

Please replace the paragraph at page 46, lines 12 through 23 with the following paragraph:

P2 This memapsin 2 solution was allowed to stand at 4 °C for 2-3 weeks. The total volume of approximately 16 liters was concentrated to 40 mls using ultra-filtration (Millipore) and stir-cells (Amicon), and centrifuged at 140,000 xg at 30 minutes in a rotor pre-equilibrated to 4 °C. The recovered supernatant was applied to a 2.5 x 100 cm column of S-300 equilibrated in 0.4 M urea, 20 mM Tris-HCl, pH 8.0, and eluted with the same buffer at 30 ml/hour. The active fraction of memapsin 2 was pooled and further purified in FPLC using a 1 ml Resource-Q® (Pharmacia Biotech 1997, page 195) column. Sample was filtered, and applied to the Resource-Q® column equilibrated in 0.4 M urea, 50 mM Tris-HCl, pH 8.0. Sample was eluted with a gradient of 0 - 1 M NaCl in the same buffer, over 30 ml at 2 ml/min. The eluents containing memapsin 2 appeared near 0.4 M NaCl which was pooled for crystallization procedure at a concentration near 5 mg/ml.